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PATRONAGE DIVIDENDS IN COOPERATIVE GRAIN COMPANIES.

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INTRODUCTION.

The by-laws of a great many cooperative associations provide for the payment of dividends to their patrons prorated in direct ratio to the amount of business carried on between the organization and the individual members. In a great majority of those organizations these provisions have not yet been put into effect.

The principle of patronage dividends has been understood by students of cooperation from the beginning, but has only lately been making itself felt among the rank and file of the great body of intending cooperators of America. The organization of farmers' elevators, having had its origin at a time when cooperation on the North American continent had not been the subject of much study, quite naturally sought the lines of least resistance. It is natural, then, since the corporation law was well founded and in successful

NOTE.—This bulletin should be of interest to farmers' cooperative grain elevators and warehouses, and to members of these companies. It should be of interest to farmers and others who are forming new cooperative grain elevators and warehouses.

operation, that the vast majority of these organizations were chartered under this law.

The central idea of these farmers was that of pure cooperation, as evidenced by the insertion of cooperative clauses in the by-laws of many of these companies, but the vehicle through which cooperation was to be carried out was not provided for by law, except in a few instances, and fundamentally was not intended to carry out the purposes for which the farmers then sought to use it. Later, when laws were passed providing for the distribution of dividends upon a cooperative basis, apathy on the part of the management of the elevators and obstacles contingent upon their organization as corporations delayed the readjustment of these companies to the new conditions. The organization of a new cooperative company where cooperative laws are in effect is a simple matter in comparison with the readjustment of a company which has been in business for several years, has accumulated a surplus, and taken on business relations of a complex nature.

It is not difficult in itself to provide a means of paying patronage dividends when conditions regarding the organization of an association have been prearranged for that purpose. The difficulties which confront the majority of cooperative elevators at the present moment are matters of organization or reorganization rather than of method. Where the organization has been perfected under some modern cooperative law, the adjustment to a patronage dividend basis is practically automatic. If there are difficulties, they are encountered in providing a method of distribution which shall be at the same time economical and efficient.

It is in the older organizations, founded under the corporation law, that the greater difficulties arise. The cooperative laws of the State under whose jurisdiction the elevator is operated, usually provide the conditions under which new organizations may be formed and old ones converted to the provisions of the cooperation statute.

COOPERATIVE ORGANIZATION IN RELATION TO PATRONAGE DIVIDEND PAYMENTS.

In discussing the relation of cooperative elevator organization to patronage dividend payments, elevator companies may be grouped under several heads or classes. Treating these progressively from the earlier types to the more complex later organizations, we should first consider the single community elevator company organized as a corporation. It should be understood that the method of adaptation to the patronage dividend basis applies only to such elevators as are properly under the jurisdiction of a cooperative law.

In the case of old organizations, it may be stated generally that it is safe to reorganize a corporate company under conditions which will

satisfy its debts and distribute its surplus to the stockholders, thus reducing the organization to the relative basis upon which it began business. The distribution of the surplus to the corporation stockholders before reorganizing is important, since it is held under the corporation law that the earned surplus is held for the benefit of the stockholders. Aside from this procedure, the company should comply with the provisions of law peculiar to the State in which it is located, so that it may transact its business legally as a cooperative concern.

The single elevators organized from the beginning under the cooperative law constitute the second class. This class also will include the elevators just described after their reorganization.

A third class may be designated as the county unit plan, such as is found operating in Kansas under the control of the Farmers' Union. Under this arrangement, all the elevators belonging to a county union are banded together as one cooperative association and transact business as a unit. In order to keep a close check upon the business under the varying conditions of management in the several elevators represented, it has been found advisable to keep the records of the company in such a manner as to show the individual earning percentage of each elevator.

As these records are kept in a general office, the distribution of the patronage dividend payments from the controlling office is possible and may be provided for either by paying a uniform rate to all the patrons or by varying the rate according to the percentage of profit in each of the elevators.

The companies of the fourth class are in many particulars similar to those of the third class or county unit plan, but are organized on a greatly extended scale.[1] In addition to the activities usual to primary elevators these companies have entered the terminal market upon the same basis as a commission company, holding memberships on boards of trade and doing an extensive commission business. Such companies have not been able to pay a patronage dividend, although specifically organized with the privilege of doing so.

The inability to pay patronage dividends when operating as a commission company has been due to the existence of the commission rule commonly applied between members in the various boards of trade and chambers of commerce. This rule, prohibiting as it does the returning of any part of a trader's profits to the shippers upon the ground that such would constitute a rebate, practically precludes the possibility of paying patronage dividends. Where all earnings and net profits are figured upon the whole business transacted by the company as a unit it is impracticable, under this rule, to divide the profits upon any but a stock dividend basis.

[1] Companies operating under the fourth class are at present confined to the Canadian Northwest.

Under the fifth division may be considered the companies which are similar to those operating under division four where all the profits are retained in the locals, or pooled in the general treasury to be prorated according to the business of the patrons, but with this difference—that the companies themselves do not enter upon any business except that properly belonging to primary elevators. In order to secure the benefits of trading on the board of trade a company organized explicitly for that purpose might be employed. All the stock in such a corporation could then be owned either by the several stockholders of the primary elevator company or by the elevator company itself if so authorized under the law.

The profits accruing to such a company in the first place could be distributed to the individual stockholders, or in the second case could be paid into the general treasury of the primary elevator company and there prorated to the several locals according to the amount of business each had transacted. Under present conditions of the market any plan of organization which attempts the distribution of patronage dividends which in any way embrace profits accruing to the organization on the boards of trade doubtless would meet with opposition.

ACCOUNTING AND BUSINESS PRACTICE IN RELATION TO PATRONAGE DIVIDEND PAYMENTS.

Business methods employed to effect the complete distribution of profits derived from the transaction of business in cooperative companies and societies are at present in the experimental state. The newness of the application of thoroughgoing cooperative methods has not given time for an extended study of those business and accounting requisites necessary for the scientific operation of the business. In privately operated elevators the same need has not been felt for accurate records and improved business methods as has arisen since cooperative methods of transacting the business of agricultural marketing organizations became general. Because each member of a cooperative organization is in fact an interested partner, and to some extent feels a personal responsibility for the success of the association, it has become imperative in such societies or companies that their methods of operation and systems of accounts be clear, comprehensive, and at the same time easily understood.

DESIRABILITY OF STANDARDIZATION OF ACCOUNTING RECORDS.

Progress in cooperative methods of handling grain has been so rapid that in many cases the business has outgrown the methods which were borrowed from other lines of operation. Systems of accounts and plans of operation have been tried which often were not suited to the needs of the business. For every reason it would seem the part of wisdom for leaders in the movement to work to-

ward the standardization of the operation of cooperative marketing organizations,[1] and especially should they unite on a uniform system of accounting records.

DIVERSITY OF CONDITIONS AND METHODS OF DISTRIBUTION.

The methods of distribution of dividends, however, must be modified to fit the varying conditions under which elevators operate. The cooperative principle of marketing is applied to the single community and to areas embracing counties and even districts of several counties each. Any method of doing business which contemplates the management of these organizations must be as varied as the business with which it is used. In dealing with such methods or systems the general classes of enterprises previously outlined will be considered, but since few elevator organizations are able to conduct their business under exactly the conditions of any of the groups cited, it is probable that a determination of profits on a pro rata basis necessarily will be a combination of some of the plans described.

PATRONAGE DIVIDEND RECORDS.

The method of accounting in a single cooperative elevator is not unlike that which would be employed in any other single elevator, except that certain records must be kept which will show the total business transacted between the elevator and each of its patrons. This total includes the business conducted by the elevator of both purchasing and selling. For the single elevator the simplest method of accounting for the business transactions can be obtained through the use of what may be called the patronage ledger. This ledger is so arranged as to receive the tabulation of bushels and pounds of each kind of grain purchased and of the selling value of all commodities of merchandise sold. The record of grain purchased may be obtained from the stubs of the checks given in payment for grain, and the amount of sale of each kind of merchandise may be similarly obtained from the duplicates of the sales tickets. In this ledger the requisite number of sheets is assigned to each customer, so that at the end of the year the total business transacted with each patron is recorded under his name.

BASIS OF DISTRIBUTION.

When the books of record of the company have been closed for the year and the profit determined a certain percentage on the capital stock outstanding can be paid as a dividend. After deducting this percentage from the total amount of profit a determination can be made of the amount of money still on hand available for distri-

[1] Kerr, W. H., and Nahstoll, G. A.: Cooperative organization business methods, U. S. Department of Agriculture, Bulletin 178. 1915.

bution as a patronage dividend, and this may be distributed accordingly, allotting a certain amount per bushel to the transaction in grain and a certain percentage of the value of the goods sold to the merchandise transaction. It should be the practice of cooperative organizations to set aside all reserves and additions to surplus before paying either the stock or patronage dividends.[1]

Considerable difference of opinion has arisen regarding the proper basis for distribution of patronage dividends on transactions in grain. It has been held by certain managers and boards of directors that the value of grain purchased should be the basis for distribution, but investigations by the Office of Markets and Rural Organization show that distribution should be made on the basis of quantity handled.

In handling grain the management of an elevator usually determines upon a certain net margin between the purchasing and selling value which it assumes will yield sufficient revenue to carry on the business. Almost without exception this margin is the same on all varieties of grain. It must be apparent, therefore, that, since this margin yields whatever profit accrues to the elevator, it would not be equitable to pay a patron hauling oats at 38 cents a bushel a smaller patronage dividend on the same number of bushels than might accrue to a patron hauling wheat at $1.10. If the value of the grain determined the profit, a value basis could be established for determining patronage dividends; but the fact that two patrons hauling the same kind of grain at different times of the year under conditions of price fluctuation would receive varying amounts of money for the same number of bushels of the same commodity shows that this is not the proper basis for patronage dividend distribution.

THE PATRONAGE LEDGER.[2]

In attempting to consider the application of cooperative accounting methods to the county unit or district plan, a transition is made from a very simple plan of organization to one of greater complexity and to a plan which in its accounting requirements makes demands for an extension of the idea contained in the patronage ledger. Throughout the consideration of accounting requisites for cooperative elevators, the patronage ledger will always remain the basis to be relied on for data. As the complexity of organization increases, however, the patronage ledger takes on a new form and develops into a comprehensive filing system. The patronage ledger

[1] Bassett, C. E., Moomaw, Clarence W., and Kerr, W. H.: Cooperative Marketing and Financing of Marketing Associations, U. S. Department of Agriculture, Yearbook, 1914. See p. 196.

[2] Humphrey, John R., and Kerr, W. H.: A System of Accounts for Farmers' Cooperative Elevators, U. S. Department of Agriculture, Bulletin No. 236. 1915. See p. 10.

in book form becomes too cumbersome to be economically feasible for daily use under these more complex conditions.

In the county plan several elevators are grouped together into a single unit, with the control centering in a general office supervised by a general manager. As any system of accounts devised for this type of organization should aim to minimize the work of each local manager, all accounting, except such as is required for the recording of sales of merchandise to local patrons, is recorded in the central office. In this case a system of grain-purchase tickets will take the place of the patronage ledger. Each station manager will record upon a suitable ticket all the grain received from a certain patron during a business day. At the end of the day these tickets will be forwarded to the central office, together with the report of all the business transactions of the day. At the central office these grain-purchase tickets should be alphabetized by the names of the patrons. If the grain has been received and not paid for, such tickets are filed according to number in another compartment of the filing drawer, to be removed to the alphabetical file upon notice that the grain has been purchased. By this method of filing it becomes possible, through the use of an adding machine, to arrive at the business transacted with each of the patrons during any period by simply adding together the totals of the tickets registered under each name. In the case of sales of merchandise, a similar filing system should be used, each of the patron's purchases being filed under his name. At the end of the year the bookkeeper would be able to record on his patronage ledger, under the name of each patron, the total transactions of both kinds of business occurring during the year. It has been customary under the county-unit plan to keep the business of each elevator separate and apart from that of any other belonging to the group. For this reason the profit derived from the business of each of these elevators also can be determined.

Although it is usual to consider the profits of the organization as a whole when distributing patronage dividends under this arrangement, a condition sometimes has arisen which has been the subject of considerable discussion. By keeping each elevator's business entirely separate, in some instances the patrons of the different elevators have been paid their pro rata share of the profits of the elevator with which they did business. In some cases different elevators operating at a less relative cost per bushel have been able to pay a higher per bushel dividend than others in the same group. The following question has then arisen: Inasmuch as each patron is contributing to the prosperity of the county organization on a per bushel basis, from which it is assumed the same margin of profit has been taken, would it not be more equitable if the gross profits of the organization were pooled, the entire expenses deducted, and each patron paid his equal

pro rata share of the entire net profit, thus equalizing the rate of payment per bushel to each patron? The solution of this question rests upon the point of view which the cooperators maintain in relation to the purposes of cooperation. If they look upon the subject from a broad standpoint and consider themselves as members of the county organization first and of their local organization last, then they will feel that the rate of dividend payments should be equalized according to the transactions of the organization as a county unit. On the other hand, if the organization is not so closely united in sentiment nor in actuality, but is rather a group of organizations banded together for the mutual benefit of the separate elevators and not for an equal rate of benefit to the patrons, each patron will depend upon the prosperity of his local for the rate of return per bushel on his grain. His other transactions with the company would be on the same principle.

COUNTY UNIT OR DISTRICT REQUIREMENTS.

For accounting purposes the methods of doing business in the fourth and fifth classes of companies which operate elevators or warehouses exclusively would fall under three heads, two of which are operative under the county-unit plan. These may be defined as follows: Groups of elevators where the profits are determined for each elevator; groups of elevators where the profits are pooled in the treasury of the general organization; and groups of elevators shipping to a terminal elevator belonging to the company, where the grain is held for future sale and where grain from various elevators is mixed in the process of selling, thus losing the carload identity of the different original shipments.[1] Under the third group two divisions may be found. The first, wherein the various elevators ship all their grain to the terminal warehouse, and the second comprising those which ship partially to the terminal warehouse and sell the remainder of their output independently to outside parties.

Accounting methods suitable for the first two groups would be practically identical with those used under the county-unit plan except that the idea would have to be extended in accordance with the increased number of elevators participating. In considering the third group, there is the possibility of a difference of opinion over the basis of distribution, as previously cited—whether it should be upon an equal pro rata division of the net profits, considering the profits as belonging to the entire organization, or whether each elevator should receive back its pro rata share of the whole net

[1] The Farmers' Union operates terminal warehouses at various points in the Canadian Northwest which would fall under this plan.

profit, this to be distributed among its patrons. Independent sales fall outside the discussion of proration of general profits, because the profits from these accrue entirely to the elevator making the sale. If profits are pooled and the expenses of all the elevators participating are also shared on a common basis, the method of finding the rate for the division of the profits is merely a matter of dividing the profits by the number of bushels of grain handled by the entire group of elevators. If, on the other hand, the varying rates of expense incidental to operation in the different elevators and the various advantages in selling which have occurred during the year are taken into consideration, the division of profits then becomes much more complicated.

By compiling a formula which takes into consideration all the factors which go to make up the rate of profit, the amount of profit for each elevator can be determined, and this will allow a distribution of profits on varying rates to the patrons of the different elevators in accordance with the economic advantage of each separate station.

For purposes of illustration it will be assumed that in a certain organization there are five elevators, each operating on a different rate of expense, all shipping to the central organization, which, acting as their agent, disposes of the grain through its terminal warehouse. In such a case each elevator must keep its own books, so that it will know the amount of expense incurred and the number of bushels handled. At the end of the year, when the central organization has determined the total amount of profit, settlements will be made with the various locals according to the following table,[1] from which it will be seen that the average cost of operation per bushel is $0.03.

	Bushels handled.	Elevator expense.	Share of profit for each elevator.	Individual expense per bushel.
Elevator A	500	$25	$40	$0.05
Elevator B	500	30	35	.06
Elevator C	1,200	40	116	.0333
Elevator D	2,400	40	272	.0167
Elevator E	600	21	57	.035
	5,200	156	520	.....

The figures in this table are determined by the use of a formula which is derived from the combination of various items which must be taken into consideration when transacting the business under this arrangement. Before setting down the formula, the

[1] These figures are not taken from any firm, but are used merely for illustration.

meaning of the various letters comprising it are explained as follows:

(e) Individual expense.
(c) Cost of handling at each elevator per bushel.
(ac) Average cost of handling per bushel for the total.
(b) Number of bushels handled.
(p) Average profit per bushel for the total.
(ip) Individual profit for each elevator.

From this it will be seen that $\frac{e}{b}=c$ and $p-(c-ac)\times b=ip$. In other words, assuming in the above table that the average profit per bushel for the total was 10 cents, the formula in figures for each elevator, taking elevator A as an example, would be $\frac{25}{500}=0.05$, which is the per bushel cost of operating. The average cost is $\frac{156}{5200}=0.03$.

The formula for individual profit in figures would be as follows: $0.10-(0.05-0.03)\times 500=40.00$, which is the individual share of profit belonging to elevator A. The profit belonging to each of the other elevators is determined in a similar manner, and the total profit thus determined will be found to equal $520, which is 10 cents per bushel on 5,200 bushels.

In order to adjust a plan of accounting and business practice to the needs of a large organization, it will be well to have a business and accounting expert go over carefully the present methods of business and make recommendations. This will mean the organization of an office staff competent to perform the work connected with the management of the business. The plans outlined in this bulletin, if put in operation under competent control, should insure the equitable distribution among the patrons of the earnings of elevator and warehouse companies.

PUBLICATIONS OF U. S. DEPARTMENT OF AGRICULTURE RELATING TO COOPERATIVE MARKETING.

AVAILABLE FOR FREE DISTRIBUTION.

Cooperative Organization Business Methods 1915 (Department Bulletin 178).

A System of Accounts for Farmers' Cooperative Elevators 1915 (Department Bulletin 236).

A System of Accounts for Primary Grain Elevators 1916 (Department Bulletin 362).

Grain Farming in the Corn Belt with Live Stock as a Side Line 1916 (Farmers' Bulletin 704).

Cooperative Marketing and Financing of Marketing Associations (Separate 637 from Yearbook 1914).

Lumber Accounting and Opening the Books in Primary Grain Elevators 1916 (Markets Document 2).

FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS.

Grain Movement in the Great Lakes Region 1910 (Bureau of Statistics Bulletin 81). Price, 10 cents.

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